

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,106,454 B2  
APPLICATION NO. : 10/795808  
DATED : September 12, 2006  
INVENTOR(S) : Peter De Groot, Robert Stoner and Xavier Colonna De Lega

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 2

Line 26, delete "that" after "about"

Column 3

Line 54, insert --a-- before "second"

Column 5

Line 16, replace "profiled" with --profile--

Line 37, delete "a" after "to"

Column 6

Line 28, insert --be-- after "may"

Column 8

Line 18, replace "signals" with --signal--

Column 9

Line 56, replace "displays" with --display--

Line 57, replace "transmits" with --transmit--

Column 10

Line 57, replace "objectives" with --objective--

Column 13

Line 54, insert --be-- after "may"

Column 14

Line 63, delete "is" after "polarizer"

Column 19

Line 25, replace "that" with --than--

Column 21

Line 66, replace " $q_{\beta,k} = q_{\beta,k}^s + q_{\beta,k}^p$ " with --  $q_{\beta,k} = q_{\beta,k}^s + q_{\beta,k}^p$  --

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Column 22

Line 4, replace " $\langle \phi_{\beta,k}^n \rangle = \arg(q_{\beta,k}^s + q_{\beta,k}^p)$ " with -- " $\langle \phi_{\beta,k}^n \rangle = \arg(q_{\beta,k}^s + q_{\beta,k}^p)$  --

Line 8, replace " $\langle \phi_{\beta,k}^n \rangle \neq (\phi_{\beta,k}^{ns} + \phi_{\beta,k}^{np})/2$ " with -- " $\langle \phi_{\beta,k}^n \rangle \neq (\phi_{\beta,k}^{ns} + \phi_{\beta,k}^{np})/2$  --

Line 12, replace " $\langle Q_{\beta,k} \rangle \neq (Q_{\beta,k}^s + Q_{\beta,k}^p)/2$ " with -- " $\langle Q_{\beta,k} \rangle \neq (Q_{\beta,k}^s + Q_{\beta,k}^p)/2$  --

Line 15, replace " $R_{\beta,k}^s, R_{\beta,k}^p$  and  $Z_{\beta,k}^s, Z_{\beta,k}^p$ " with --  $R_{\beta,k}^s, R_{\beta,k}^p$  and  $Z_{\beta,k}^s, Z_{\beta,k}^p$  --

Column 23

Line 23, insert --are-- after "we"

Column 24

Line 25, replace " $g_{1,\beta,k}^p = -\frac{\tan(\psi_0 - \psi_{1,\beta,k})}{\tan(\psi_0 + \psi_{1,\beta,k})}$ " with

$$g_{1,\beta,k}^p = -\frac{\tan(\psi_0 - \psi_{1,\beta,k})}{\tan(\psi_0 + \psi_{1,\beta,k})}$$

--  $g_{1,\beta,k}^p = -\frac{\sin(\psi_0 - \psi_{1,\beta,k})}{\sin(\psi_0 + \psi_{1,\beta,k})}$  --

Line 38, replace " $g_{2,\beta,k}^s = -\frac{\tan(\psi_{1,\beta,k} - \psi_{2,\beta,k})}{\tan(\psi_{1,\beta,k} + \psi_{2,\beta,k})}$ " with

--  $g_{2,\beta,k}^s = -\frac{\sin(\psi_{1,\beta,k} - \psi_{2,\beta,k})}{\sin(\psi_{1,\beta,k} + \psi_{2,\beta,k})}$  --

Line 47, replace " $z_{\beta,k} = \theta_{1,\beta,k}$  (simple surface, no thin film)" with

-- $z_{\beta,k} = \vartheta_{1,\beta,k}$  (simple surface, no thin film)--

Line 52, replace " $\omega_{\beta,k} = \arg(\theta_{1,\beta,k})$ " with --  $\omega_{\beta,k} = \arg(\vartheta_{1,\beta,k})$  --

Column 27

Line 8, replace "100xMirau" with --100X MIRA--

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Column 29

Line 10, replace "40 mm" with --40 nm--  
Line 11, replace "498 mm" with --498 nm--  
Line 21, replace "300 run" with --300 nm--  
Line 52, replace "removes" with --remove--

Column 30

Line 23, replace " $q_{K>0}^{ex} = M^{-1} \exp[-i\gamma_{sys} - i(K - K_0)\tau_{sys}]q_{K>0}^{ex}$ " with  
--  $q_{K>0}^{ex} = M^{-1} \exp[-i\gamma_{sys} - i(K - K_0)\tau_{sys}]q_{K>0}^{ex}$  --

Line 33, replace "functions" with --function--  
Line 50, replace " $\Gamma_{sys} = K_0 h$ " with -- $\gamma_{sys} = K_0 h$ --

Column 31

Line 49, replace "signals in" with --signals--

Column 32

Line 48, replace "consider to" with --consider--  
Line 56, delete "a"

Column 33

Line 1, insert "be" after "can"  
Line 26, replace "analysis the" with --analysis that--  
Line 54, delete "be" after "would"

Column 34

Line 5, replace " $I_{temp}^j(\zeta) = m_{temp}^j(\zeta) \cos[K_0\zeta + \phi_{temp}^j(\zeta)]$ " with  
--  $I_{temp}^j(\zeta) = m_{temp}^j(\zeta) \cos[K_0\zeta + \phi_{temp}^j(\zeta)]$  --

Line 7, replace " $m_{temp}^j(\zeta)$  and  $\phi_{temp}^j(\zeta)$ " with --  $m_{temp}^j(\zeta)$  and  $\phi_{temp}^j(\zeta)$  --

Line 11, replace " $m_{temp}^j(\zeta)$  and  $\phi_{temp}^j(\zeta)$ " with --  $m_{temp}^j(\zeta)$  and  $\phi_{temp}^j(\zeta)$  --

Line 15, replace " $\bar{I}_{temp}^j(\zeta) = m_{temp}^j(\zeta) \exp[i(K_0\zeta + \phi_{temp}^j(\zeta))]$ " with  
--  $\bar{I}_{temp}^j(\zeta) = m_{temp}^j(\zeta) \exp[i(K_0\zeta + \phi_{temp}^j(\zeta))]$  --

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Column 34 Cont.

Line 25, replace " $\tilde{I}_{pat}^k(\zeta) = w(\zeta)\tilde{I}_{temp}^k(\zeta)$ " with  
--  $\tilde{I}_{pat}^k(\zeta) = w(\zeta)\tilde{I}_{temp}^k(\zeta)$  --

Line 37, replace " $\tilde{I}_{pat}^j$ " with --  $\tilde{I}_{pat}^j$  --

Column 35

Line 8, replace " $m_{temp}^j$ " with --  $m_{temp}^j$  --

Lines 11 and 12, replace " $\phi_{ex}, \phi_{pat}^j$ " with --  $\phi_{ex}, \phi_{pat}^j$  --

Line 15, replace " $\tilde{I}_{pat}^j$ " with --  $\tilde{I}_{pat}^j$  --

Line 56, replace " $\langle |\tilde{I}_{ex}(\zeta)|^2 \rangle \leftarrow \langle |\tilde{I}_{ex}(\zeta)|^2 \rangle + MinDenom \cdot \max(\langle |\tilde{I}_{ex}|^2 \rangle)$ " with  
--  $\langle |\tilde{I}_{ex}(\zeta)|^2 \rangle \leftarrow \langle |\tilde{I}_{ex}(\zeta)|^2 \rangle + MinDenom \cdot \max(\langle |\tilde{I}_{ex}|^2 \rangle)$  --

Column 39

Claim 12, line 24, delete "a" before "expressed"

Column 42

Claim 60, line 30, delete "a" before "expressed"

Signed and Sealed this

Tenth Day of June, 2008



JON W. DUDAS  
Director of the United States Patent and Trademark Office